

**REMARKS**

This is in response to the Office Action dated September 5, 2006, in which claims 2, 20, and 30 were objected to because of informalities; claims 1, 3-5, 9-13, 15-18, 26, 27-32, 35-40, 42-44, 46-52, 57-60, 64, and 66-69 were rejected under 35 U.S.C. § 102(b) as being anticipated by Theyssen (U.S. Pat. No. 5,935,914); claims 1-4, 9, 10, 15-18, and 26-29 were rejected under 35 U.S.C. § 102(e) as being anticipated by Abe (2004/037960 A1); claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Theyssen; claim 14 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Theyssen in view of Behler (U.S. Pat. No. 4,894,485); claims 19-21, 23, 24, 41, 56, 65, and 70 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Theyssen in view of Person Hei (U.S. Pat. No. 5,723,418); claim 25 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Theyssen in view of Person Hei and Login (U.S. Pat. No. 4,395,373); claims 11, 30, 31, 35-40, 42-46, 49-51, 57-59, 64, 66, 67, and 69 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Abe; and claims 6-8, 33, 34, 53-55, and 60-63 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Abe in view of Li (U.S. Pat. No. 6,214,777 B1). With this amendment, claims 1, 2, 19-24, 30, 44, 49, 57, 58, and 67 have been amended and claims 5-8, 31-34, 37, 50, 52-55, 59-63, and 68 have been canceled. In reliance on the following remarks, the present application with pending claims 1-4, 9-30, 35, 36, 38-49, 51, 56-58, 64-67, 69, and 70 is in condition for allowance, and reconsideration and notice to that effect are respectfully requested.

With this Amendment, claims 5-8, 31-34, 37, 50, 52-55, 59-63, and 68 have been canceled without prejudice. Therefore, the rejections to claims 5-8, 31-34, 37, 50, 52-55, 59-63, and 68 should be withdrawn.

**Claim Objections**

In the Office Action, claims 2 and 30 were objected to because of informalities. In particular, the Examiner stated that claims 2 and 30 were deficient for failing to define "R". As amended, claims 2 and 30 define "R" as a linear or branched C<sub>16</sub>-C<sub>18</sub> alkyl group. Support is found

in the specification, "Longer alkyl chains of about 16-18 carbon atoms have been found to provide excellent solubility and lubricity." (Page 5, lines 32-33). Thus, the objections to claims 2 and 30 should be withdrawn, and claims 2 and 30 allowed.

Claim 20 was also objected to because of informalities. Claim 20 has been amended to define an ether diamine as having only the following general formula:  $R_1-O-R_2-NH-R_3-NH_2$ . Therefore, the objection to claim 20 should be withdrawn and claim 20 allowed.

### **Claim Rejections Under 35 U.S.C. § 102**

In the Office Action, claims 1, 3-5, 9-13, 15-18, 26-32, 35-40, 42-44, 46-52, 58-60, 64, and 66-69 were rejected under 35 U.S.C. § 102 (b) as being anticipated by Theyssen. Claims 1-4, 9, 10, 15-18, and 26-29 were also rejected under 35 U.S.C. § 102 (e) as being anticipated by Abe. These rejections will be discussed in combination with one another. Independent claims 1, 30, 44, 57, and 67 have been amended to require that the defoamer or foam destabilizer is a  $C_9-C_{11}$  alkoxyated alcohol. Neither Theyssen nor Abe show, suggest, or teach a foam destabilizer that is a  $C_9-C_{11}$  alkoxyated alcohol.

Although Theyssen discloses using alkoxyated fatty alcohols in the composition, the alkoxyated fatty alcohols are used to moisten the conveyer belt. (Col. 14, lines 33-38). They do not function as a foam destabilizer. Abe briefly discloses that additives such as foam inhibitor agents, foam regulators, or foam stabilizers can be added to the aqueous solution. (Page 6, lines 8-14). However, there is no mention of any specific foam inhibitor agents, foam regulators, or foam stabilizers in the specification. In fact, the examples do not even mention using a foam inhibitor agent, foam regulator, or foam stabilizer.

By contrast, independent claims 1, 30, 44, 57, and 67 require a  $C_9-C_{11}$  alkoxyated alcohol as a foam destabilizer. The alkyl chain length is significant because it affects the solubility in water. As stated in the specification, the foam destabilizer is an alkoxyated alcohol having "...about 8 to 16 carbon atoms, more suitably about 9 to 11 carbon atoms." (Page 7, lines 1-2). Tables 1 and 9-12 in the specification also give examples of compositions using a  $C_9-C_{11}$  alkoxyated

alcohol as a foam destabilizer and compositions using other, or no, foam destabilizers. Examples 1 and 2 used a C<sub>9</sub>-C<sub>11</sub> alkoxyated alcohol as a foam destabilizer. Comparative Examples H, I, and M used no foam destabilizer, comparative example J used a low foam surfactant concentrate and proprietary amine based gemini surfactant as a foam destabilizer, comparative example K used a proprietary amine based gemini surfactant as a foam destabilizer, and comparative example L used a C<sub>8</sub>-C<sub>10</sub> alkoxyated alcohol as a foam destabilizer. (Tables 1, 9, and 11). As can be seen in Tables 10 and 12, comparative examples H, I, and M using no foam destabilizer had very poor results with high initial levels of foaming. The level of foam also did not decrease to acceptable levels over time. Comparative example J used a blend of short chain surfactants and a complex carboxylated polymer. While the initial level of foam of comparative example J was the same as the initial level of foam of example 1, the level of foam of comparative example J did not decrease with time. (Table 10). Comparative example K used one of the same defoamers as used in comparative J, also producing high levels of foam. (Table 10). The composition of comparative example L used a foam destabilizer having a different ethoxylation propoxylation structure and did not have the same performance as example 1, which used a C<sub>9</sub>-C<sub>11</sub> alkoxyated alcohol. (Table 10).

Neither Theyssen nor Abe show, suggest, or teach using a C<sub>9</sub>-C<sub>11</sub> alkoxyated alcohol as a defoamer. Therefore, the rejections to independent claims 1, 30, 44, 57, and 67 under 35 U.S.C. § 102 should be withdrawn and claims 1, 30, 44, 57, and 67 allowed. In that independent claims 1, 30, 4, 57, and 67 are in condition for allowance, the rejections to claims 2-4, 9-29, 35, 36, 38-43, 45-49, 51, 56, 58, 64-66, 69, and 70, which depend therefrom, should be withdrawn as well and claims 2-4, 9-29, 35, 36, 38-43, 45-49, 51, 56, 58, 64-66, 69, and 70 allowed.

### **Claim Rejections Under 35 U.S.C. § 103**

In the Office Action, claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Theyssen. In that independent claim 1 is in condition for allowance, the rejection to claim 2, which depends therefrom, should be withdrawn and claim 2 allowed.

In the Office Action, claim 14 was rejected under 35 U.S.C. § 103(a) as being

unpatentable over Theyssen in view of Behler. In that independent claim 1 is in condition for allowance, the rejection to claim 14, which depends therefrom, should be withdrawn and claim 14 allowed.

In the Office Action, claims 19-21, 23, 24, 56, 65, and 70 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Theyssen in view of Person Hei. In that independent claims 1, 44, 57, and 67 are in condition for allowance, the rejections to claims 19-21, 23, 24, 56, 65, and 70, which depend therefrom, should be withdrawn and claims 19-21, 23, 24, 56, 65, and 70 allowed.

In the Office Action, claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Theyssen in view of Person Hei and Login. In that independent claim 1 is in condition for allowance, the rejection to claim 5, which depends therefrom, should be withdrawn and claim 5 allowed.

In the Office Action, claims 11, 30, 31, 35-38, 39, 40, 42-46, 49-51, 57-59, 64, 66, 67, and 69 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Abe. Independent claims 1, 30, 44, 57, and 67 have been amended to require that the defoamer, or foam destabilizer, is a C<sub>9</sub>-C<sub>11</sub> alkoxylated alcohol. As discussed above regarding the 35 U.S.C. § 102 rejections, Abe does not show, suggest, or teach a foam destabilizer that is a C<sub>9</sub>-C<sub>11</sub> alkoxylated alcohol. Abe briefly discloses that additives such as foam inhibitor agents, foam regulators, or foam stabilizers can be added to the aqueous solution. (Page 6, lines 8-14). However, there is no mention of any specific foam inhibitor agents, foam regulators, or foam stabilizers in the specification. In fact, the examples do not even mention using a foam inhibitor agent, foam regulator, or foam stabilizer.

By contrast, claims 1, 30, 44, 57, and 67 require that the composition comprise a C<sub>9</sub>-C<sub>11</sub> alkoxylated alcohol as a defoamer or foam destabilizer. In that independent claims 1, 30, 44, 57, and 67 are in condition for allowance, the rejections to claims 11, 31, 35-38, 39, 40, 42, 43, 45, 46, 49-51, 58, 59, 64, 66, and 69, which depend therefrom, should be withdrawn and claims 11, 31, 35-38, 39, 40, 42, 43, 45, 46, 49-51, 58, 59, 64, 66, and 69 allowed.

In the Office Action, claims 6-8, 33, 34, 53-55, and 60-63 were rejected under 35

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U.S.C. § 103(a) as being unpatentable over Abe in view of Li. Claims 6-8, 33, 34, 53-55, and 60-63 have been canceled. In view of the cancellations, the rejections to claims 6-8, 33, 34, 53-55, and 60-63 under 35 U.S.C. § 103(a) should be withdrawn.

**Conclusion**

In view of the foregoing, pending claims 1-4, 9-30, 35, 36, 38-49, 51, 56-58, 64-67, 69, and 70 are in condition for allowance. Notice to that effect is respectfully requested.

Respectfully submitted,

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